



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
-----------------	-------------	----------------------	---------------------	------------------

10/751,252

12/30/2003

Chan Ho Kyung

2101-3-20

3891

35884

7590

03/17/2008

LEE, HONG, DEGERMAN, KANG & SCHMADEKA

660 S. FIGUEROA STREET

Suite 2300

LOS ANGELES, CA 90017

EXAMINER

DUONG, FRANK

ART UNIT

PAPER NUMBER

2616

MAIL DATE

DELIVERY MODE

03/17/2008

PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

<b>Office Action Summary</b>	<b>Application No.</b> 10/751,252	<b>Applicant(s)</b> KYUNG ET AL.	
	<b>Examiner</b> Frank Duong	<b>Art Unit</b> 2616	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 19 December 2007.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-20 and 27-30 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-20 and 27-30 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)            | 4) <input type="checkbox"/> Interview Summary (PTO-413)           |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)   | Paper No(s)/Mail Date. _____                                      |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date <u>2/29/08</u> .   | 6) <input type="checkbox"/> Other: _____                          |

### **DETAILED ACTION**

1. This Office Action is a response to communications dated 12/19/07. Claims 1-20 and 27-30 are still pending in the application.

#### ***Information Disclosure Statement***

2. The information disclosure statement filed 02/29/08 complies with the provisions of 37 CFR 1.97, 1.98 and MPEP § 609. It has been considered and placed in the application file.

#### ***Claim Rejections - 35 USC § 112***

The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

3. Claim 30 is rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention.

As per claim 30, there is no support for the claimed limitation of "wherein the third field is an IMSI\_10\_11" in the original specification.

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

4. Claims 1-15, 27 and 30 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Regarding **base claim 1**, the claim is deemed to be indefinite because of the following rationales:

a broad range or limitation together with a narrow range or limitation that falls within the broad range or limitation (in the same claim) is considered indefinite, since the resulting claim does not clearly set forth the metes and bounds of the patent protection desired. See MPEP § 2173.05(c). Note the explanation given by the Board of Patent Appeals and Interferences in *Ex parte Wu*, 10 USPQ2d 2031, 2033 (Bd. Pat. App. & Inter. 1989), as to where broad language is followed by "such as" and then narrow language. The Board stated that this can render a claim indefinite by raising a question or doubt as to whether the feature introduced by such language is (a) merely exemplary of the remainder of the claim, and therefore not required, or (b) a required feature of the claims. Note also, for example, the decisions of *Ex parte Steigewald*, 131 USPQ 74 (Bd. App. 1961); *Ex parte Hall*, 83 USPQ 38 (Bd. App. 1948); and *Ex parte Hasche*, 86 USPQ 481 (Bd. App. 1949). In the present instance, claim 1 recites the broad recitation "*the MNC has a variable length*", and the claim also recites "*the length of the MNC is greater than a fixed length*" which is the narrower statement of the range/limitation.

The clause "*wherein the MNC has a variable length*," recited on lines 4-5, is vague. It is unclear what subject in the "transmitting a message" limitation that the clause modifies.

Dependent claims 2-15, 27 and 30 variously depend from their indefinite parent base claim 1.

### ***Claim Rejections - 35 USC § 102***

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

5. Claims 1-20 and 27-30 are rejected under 35 U.S.C. 102(e) as being anticipated by Cooper et al (USP 6,445,929) (hereinafter "Cooper")

Regarding **claim 1**, in accordance with Cooper reference entirety, Cooper discloses a method of communicating a mobile network code (MNC) from a mobile communications network (Fig. 1) to a mobile station (120), the method comprising:

transmitting a message (*Fig. 3, paragraphs [0032]-[0038] or Fig. 5, paragraph [0053]*) comprising *at least one of* a first field (*MCC*) and a second field (*IMSI\_11\_12*), wherein the MNC has a variable length (2-digits or 3-digits), and wherein the first field (*MCC*) indicates whether the MNC is greater than a fixed length (2-digit) (*paragraphs*

*[0031]-[0038], it is specifically disclosed at paragraph [0037] that if network operator code (NOC) (equivalence to MNC [paragraph [0032]]) is a 2-digit, it is carried in the IMSI\_11\_12 and if the NOC is a 3-digits, it is carried in the IMSI\_11\_12 and in the least significant bit of the MCC as presented by nnA).*

Regarding **claim 2**, in addition to features recited in base claim 1 (see rationales discussed above), Cooper also discloses wherein the first field further indicates whether the second field is included in the message (Fig. 3) (*paragraph [0037]*).

Regarding **claim 3**, in addition to features recited in base claim 1 (see rationales discussed above), Cooper also discloses wherein when the network supports the MNC having length greater than the fixed length, the first field is set to a first logic level (not 0) to indicate that the second field is included (*paragraph [0037]*).

Regarding **claim 4**, in addition to features recited in base claim 1 (see rationales discussed above), Cooper also discloses wherein when the network supports the MNC not greater than the fixed length, the first field is set to a second logic level (0) to indicate that the second field is not included (*paragraph [0037]*).

Regarding **claim 5**, in addition to features recited in base claim 1 (see rationales discussed above), Cooper also discloses, wherein the second field comprises at least a least significant digit of the MNC (*IMSI\_11\_12 is discussed paragraph [0037] and thereafter*).

Regarding **claim 6**, in addition to features recited in base claim 5 (see rationales discussed above), Cooper also discloses wherein the least significant digit of the MNC

of the MNC is IMSI\_10 (*Note: This limitation is inherent part of the E.212 disclosed at paragraph [0037] and thereafter*).

Regarding **claim 7**, in addition to features recited in base claim 6 (see rationales discussed above), Cooper also discloses wherein most significant digits of the MNC are transmitted to the mobile station in a third field (*LSB of MCC*) (*paragraph [0037]*).

Regarding **claims 8-9**, in addition to features recited in base claim 7 (see rationales discussed above), Cooper also discloses comparing the MNC value with the stored MNC value to determine a roaming status [0059].

Regarding **claim 10**, in addition to features recited in base claim 6 (see rationales discussed above), Cooper also discloses wherein the message is sent over at least one of a paging channel and a broadcast control channel (BCCH) (*paragraph [0034]*).

Regarding **claim 11**, in addition to features recited in base claim 10 (see rationales discussed above), Cooper also discloses wherein the message is an extended system parameters message (ESPM) (*Fig. 3*) (*paragraph [0034]*).

Regarding **claim 12**, in addition to features recited in base claim 10 (see rationales discussed above), Cooper also discloses wherein the message is an ANSI-41 system parameters message (A41SPM) (*claimed message is corresponding to the standard message discussed at paragraph [0005] and thereafter*).

Regarding **claim 13** in addition to features recited in base claim 10 (see rationales discussed above), Cooper also discloses wherein the message is a MC-RR

parameters message (MCRRPM) (*claimed message is corresponding to the standard message discussed at paragraph [0005] and thereafter*).

Regarding **claim 14** in addition to features recited in base claim 5 (see rationales discussed above), Cooper also discloses wherein value of the least significant digit of the MNC is determined based on an association between a decimal value and a binary value (*paragraphs [0035]-[0037] and thereafter or Fig. 3*).

Regarding **claim 15** in addition to features recited in base claim 14 (see rationales discussed above), Cooper also discloses wherein the binary value comprises 4 bits (*paragraphs [0035]-[0037] and thereafter or Fig. 3*).

Regarding **claim 16**, in accordance with Cooper reference entirety, Cooper discloses a method of supporting a variable length mobile network code (MNC) in a mobile terminal, the method (*Fig. 6 and paragraphs [0056]-[0060] and thereafter*) comprising: a mobile station (MS) receiving a first value representing a mobile network code of a fixed length from a network (*paragraph [0060], it is disclosed network operator identifier (MNC) comprises an MCC value and an NOC value, which may be obtained from the MCC field and the IMSI\_11\_12 field. If the NOC is a 2-digit, then it is carried in the IMSI\_11\_12*); and the MS receiving a second value which identifies whether the length of the MNC is greater than the fixed length, wherein if the second value is equal to a first logic level (*indication in the message*), the MS identifies that if the network supports the MNC having length greater than the fixed length (*paragraph [0060], it is also disclosed, if the NOC is a 3-digit value, then it is may be obtained from the MCC filed and the IMSI\_11\_12 filed, respectively of the Extended System Parameter*



Message (ESPM). Thus, it is inherently there is an indication in the ESPM that the MCC is included in the computation of the MNC).

Regarding **claim 17** in addition to features recited in base claim 16 (see rationales discussed above), Cooper also discloses the ESPN having an indication for computing the 3-digit value from the MCC and the IMSI\_11\_12 (paragraph [0060]).

Regarding **claim 18** in addition to features recited in base claim 16 (see rationales discussed above), Cooper also discloses wherein the first value comprises the most significant digits of the MNC (IMSI\_11\_12) (paragraph [0060]).

Regarding **claim 19** in addition to features recited in base claim 17 (see rationales discussed above), Cooper also discloses wherein the third value comprises at least the least significant of the MNC (*paragraphs 90037]-[0038] and [0060]*).

Regarding **claim 20** in addition to features recited in base claim 1 (see rationales discussed above), Cooper also discloses comparing the MNC value with the stored MNC value to determine a roaming status [0059].

Regarding **claim 27** in addition to features recited in base claim 1 (see rationales discussed above), Cooper also discloses the IMSI comprising MCC, MNC and IMSI\_12\_11 and IMSI\_S and when the MNC is 2-digits, the MNC is obtained from IMSI\_12\_11 and when the MNC is 3-digits, the MNC is obtained from MCC and IMSI\_12\_11 (*paragraphs 90037]-[0038] and [0060]*).

Regarding **claim 28**, the claim calls for a reverse process of method claim 1 and it is rejected as following. In accordance to the description discussed above (see rationales discussed in claim 1), Cooper discloses the process of forming system

Art Unit: 2616

parameters message (SPM) and/or extended system parameters message (ESPM) for transmitting the network operator identifier (MNC) by the base station to the mobile on the paging channel (*Fig. 3, paragraphs [[0032]-[0038] or Fig. 5, paragraphs [0053]-[0054]*). At paragraph [0054], Cooper also discloses the mobile station receives SPM and/or EPSM containing the MCC and IMSI\_11\_12 as described in claim 1. Thus, the reverse process of claim 28 is inherent disclosed by Cooper for the aforementioned rationales.

Regarding **claim 29**, in addition to features recited in base claim 28 (see rationales discussed above), Cooper also discloses wherein the calculating comprises converting most significant digits of MNC from decimal to binary (*paragraphs [0035]-[0037] and thereafter or Fig. 3*).

Regarding **claim 30**, in addition to features recited in base claim 7 (see rationales discussed above), Cooper also discloses wherein the third field is an IMSI\_12\_11 (*paragraphs 90037]-[0038] and [0060]*).

### ***Response to Arguments***

6. Applicant's arguments with respect to claims 1-29 and 27-30 have been considered but are moot in view of the new ground(s) of rejection.

***Conclusion***

7. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

8. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Frank Duong whose telephone number is 571-272-3164. The examiner can normally be reached on 7:00AM-3:30PM, Monday-Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Lynn D. Feild can be reached on 571-272-2092. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Art Unit: 2616

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Frank Duong/  
Primary Examiner, Art Unit 2616  
March 5, 2008